

## ABSTRACT

[00059] A system and method for rendering a graphics primitive. A two pass method is employed where, in the first pass, for each block affected by the primitive, whether the pixels of the affected block intersect the front and/or back layers of the block is determined. If there are intersected pixels in the block, a flag is set indicating that the z-buffer must be read to determine the visibility of the affected pixels in the block. On a second pass, the blocks affected by the graphics primitive are again examined. If the flag is not set, then the visible pixels are rendered to the frame buffer based on the front and back layers of the block. If the flag is set, then for each sub-block affected by the primitive, the z-buffer is read and the visible pixels are rendered to the frame buffer based on the reading of the z-buffer.